

REMARKS/ARGUMENTS

Upon acceptance and entry of this Amendment After Final Rejection, claims 1-5 will be under active consideration in the subject patent application. Applicant requests entry of this Amendment After Final Rejection in order to place the case in better form for allowance or appeal.

In the Official Action, the Examiner has stated that Applicant's previous argument over Shiragaki (U.S. Publication No. 2002/0162045) is unpersuasive, and once again ; rejected claims 1-5 as being unpatentable over Shiragaki, U.S. Publication No. 2002/0162045 in view of Background of Chan et al., U.S. Publication No. 2001/0046206. Applicant respectfully submits that the Examiner has mischaracterized the content of the cited references. More particularly, in the Final Official Action on page 3, the Examiner states that "*... when the A layer, namely the higher layer, sends the notice 203 to the B layer, namely the lower layer, the B layer is informed with the fact that the higher layer has detected the failure. . .*" This is simply not accurate.

According to paragraph [0171], Shiragaki states:

"...[0171] If a failure is detected in multiple layers, the A layer failure detection and recovery processing unit 101 and the B layer failure detection and recovery processing unit 102 are activated simultaneously but individually, and perform operations up to immediately before switching of a main signal. . ."

Shiragaki further states in paragraph [0182] and [0185] as follows:

"...[0182] At this time, the layers communicate with each other the fact that failure recovering has started as failure recovery starting notices 203 and 204 using the inter A-B layer failure recovery information communication terminal and processing units 103 and 104.

[0185] Since the B layer first reached the condition immediately before actually switching the main signal, this fact is communication to the other layer (A layer) as a path reservation notice 207. . . ."

Thus, if the A layer first completes failure recovery, the A layer will send the B layer the notice 203 to make the layer B know this fact. The layer B will be informed with the fact that the higher layer has detected the failure and has completed the failure recovery, but not the fact that the A layer has encountered a problem. Therefore, Shiragaki fails to disclose ". . . *after high layer processing module detection the module encounters a problem, it will inform the low layer processing module. . . .*" Reconsideration is requested on this point.

Also, in the Final Official Action at page 4, the Examiner suggests the Shiragaki reference states the following: ". . . *the higher layer stops the recovery process (indicating that the higher layer is still experiencing failure) and sends the notice 208 to the lower layer so the lower layer has the right to transmit the data*" Applicant respectfully disagrees with this characterization. According to Shiragaki reference, both A layer and B layer can detect the failure if there is, and if the B layer completes the failure recovery first, the A layer, namely the higher layer, will stop failure recovery. However, the fact that the higher layer is still experiencing failure cannot be concluded directly and without doubt, since the location of the failure, i.e., in which layer, is not definite according to the Shiragaki disclosure. Accordingly, if the failure happens in the B layer, the B layer completes the failure recovery first and the A layer stops the failure recovery, then the Examiner's characterization ". . . *the higher layer is still experiencing failure. . . .*" is not proper.

In the Final Official Action at page 4, the examiner also suggested that the Shiragaki reference suggested that “*. . . the higher layer, which is still encountering a trouble, is isolated and the data traffic is switched by the lower layer, thus bypassing the higher layer . . .*” Applicant respectfully disagrees with this characterization since according to Shiragaki, if the failure happens in the higher layer, the lower layer completes the failure recovery first, the lower layer will then switch the main signal after receiving the authorization notice (see [0188]). But “*. . . the higher layer is isolated and the data traffic is switched by the lower layer, thus bypassing the higher layer . . .*” is not disclosed, or suggested in any valid way. In fact, in this field, it is much more common for the higher layer to be involved in many kinds of data processes. The lower layer has authorization to complete failure recovery, but this does not definitely mean that the higher layer stops all the data processing and is isolated. Instead, the higher layer may go through with other data processing. If one of the purposes of the technical solution of the Shiragaki reference is making the higher layer isolated once it has encountered a failure, the lower layer would not have to notify the higher layer and get authorization from the higher layer when going through with failure recovery. The fact that the lower layer notifies the higher layer, and gets authorization from the higher layer, is mainly directed to the point that the higher layer does not need to continue failure recovery on condition of the lower layer’s completing failure recovery, nor is the higher layer isolated. Therefore, in the technical solutions of Shiragaki, the higher layer is not to be isolated.

Accordingly, Applicant respectfully submits that the technical features in the fourth step of independent claim 1 are not disclosed or suggested in any way by the Shiragaki reference. Reconsideration is requested.

Also, in the Final Official Action at page 4, the Examiner states that ". . . since the ATM is the connection oriented protocol, which requires connections and transmission parameters to be set up prior to the data flow between the source and destination pair, unless the communication path is broken, the connection, transmission parameters and the service the particular connection provides remain unchanged . . ." This is not a proper interpretation of the Chan et al. disclosures. More particularly, at paragraph [0015] of Chan et al., VP's and VC's are defined for ATM traffic, and VPI is an identifier of an ATM connection. ATM's use routing tables at each node along the path of a connection that map the connection identifiers from the incoming links to the outgoing links. It can be seen from the Chan et al., reference that the connection identifiers VPI and VCI need to be mapped from the incoming links to the outgoing links. If the identifiers of the incoming links and the outgoing links are totally the same, a mapping is likely needless. So the connection identifiers of the incoming links and the outgoing links could not be the same. The service between the upstream node and the downstream node should not remain unchanged after the higher layer mapping processing generally. Thus the technical features in the second step of claim 1 are not disclosed or suggested by Chan et al.

In a word, the technical features in the second, third and fourth steps of claim 1 are not disclosed or suggested in any way by the proposed combination of the Shiragaki reference with the Chan et al., reference, thus the rejection of claim 1 is not proper.

With regard to the rejection of claim 2, at paragraph [0015] of Chan et al., VP's and VC's are defined for ATM traffic, and VPI is an identifier of an ATM connection. ATM's use routing tables at each node along the path of a connection that map the connection identifiers from the incoming links to the outgoing links. It can be seen that the connection identifiers VPI and VCI need to be mapped from the incoming links to the outgoing links. If the identifiers of the incoming links and the outgoing links are totally the same, mapping is likely needless. So the VPI and VCI of the incoming links and the outgoing links are not the same. In contrast, according to claim 2 of the present application, a transparent virtual path connection is set up for the service passing the high layer processing module, namely for ATM traffic, a cross connection, which changes neither virtual path identification nor virtual channel identification, to avoid changing the service between the upstream node and downstream node after passing the high layer processing module of the node between the upstream node and the downstream node. Chan et al., utterly fail to teach or suggest such an arrangement. Therefore, the additional features defined by claim 2 are not disclosed by the Chan et al.

In summary, Applicant submits that the unique method defined by claims 1-5 is not disclosed in the prior art references, taken as a whole, and there is no teaching or suggestion in the Shiragaki and the Chan et al., references to support their use in the particular claimed combinations. In the absence of such, the references are improperly combined. In any event, claims 1-5 define over any combination of Shiragaki and the Chan et al., Applicant respectfully submits that claims 1-5 are in condition for allowance. Favorable reconsideration is therefore respectfully requested.

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Reply to Final Official Action of June 25, 2008

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

If a telephone conference would be of assistance in advancing prosecution of the above-identified application, Applicant's undersigned Attorney invites the Examiner to telephone him at 215-979-1255.

Respectfully Submitted,

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